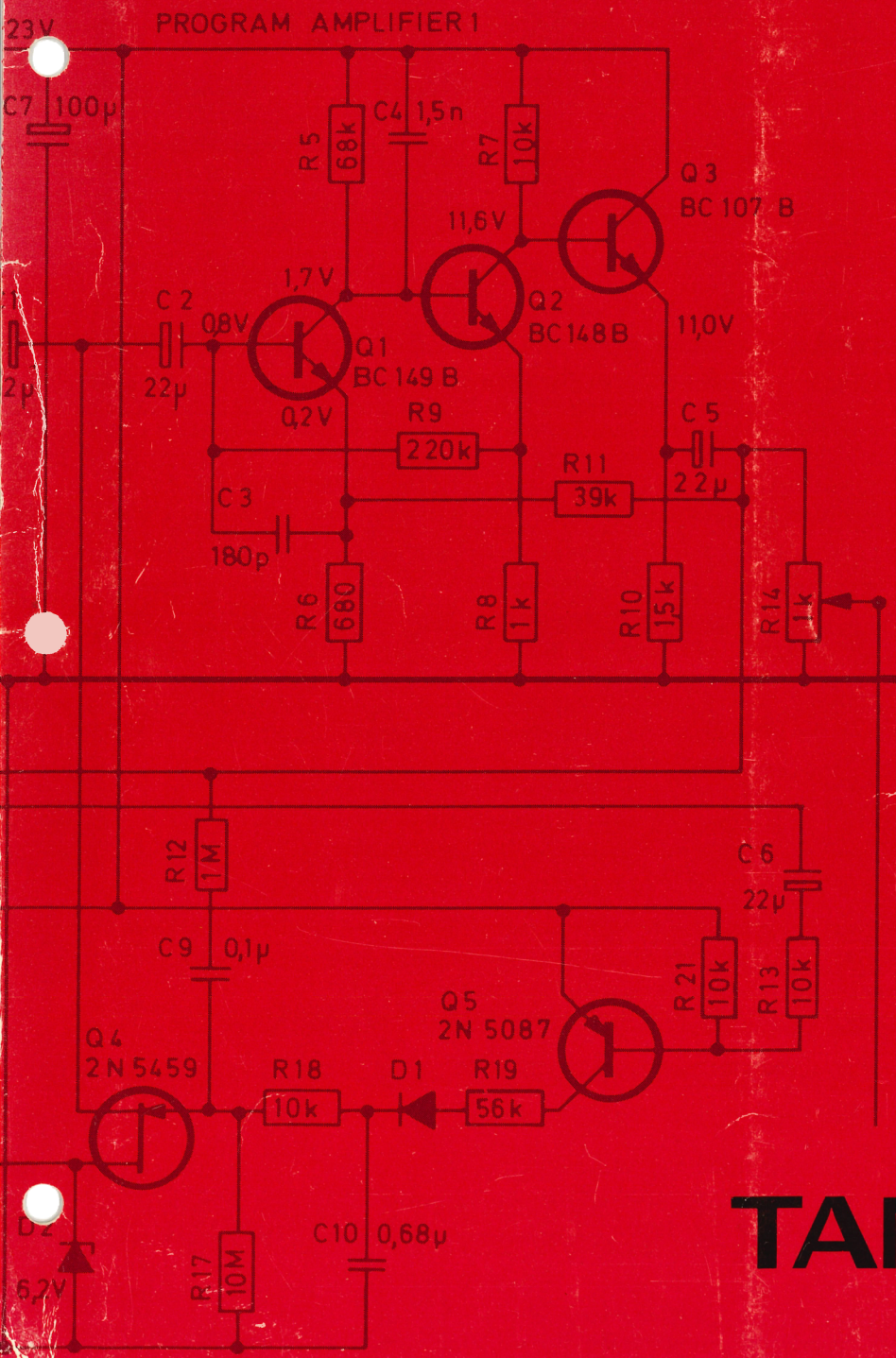
Circuit Diagrams
LANGUAGE LABORATORY IS6-B

Master Desk and Student Panel



TANDBERG

ABOUT THIS BOOK

This book contains circuit diagrams and printed board drawings for the IS6-B language laboratory. The Student Recorder is not included.

Information about the Student Recorder, series 5000, can be found in the book "Service Manual, Teaching System IS6, Student Desk" (part No. 286244). Service documentation for the Cassette Recorder, TCD 5500, will be available later.

The main assemblies, and the inter-assembly cabling are shown in the drawing on the next page. Any single interconnection from one assembly to another can be found by the use of this drawing in combination with the circuit diagrams for the assemblies in question.

All assemblies are listed in the contents list below.

OSLO, SEPTEMBER 1973

TANDBERGS RADIOFABRIKK A/S
P.O.B. 9, KORSVOLL
OSLO 8

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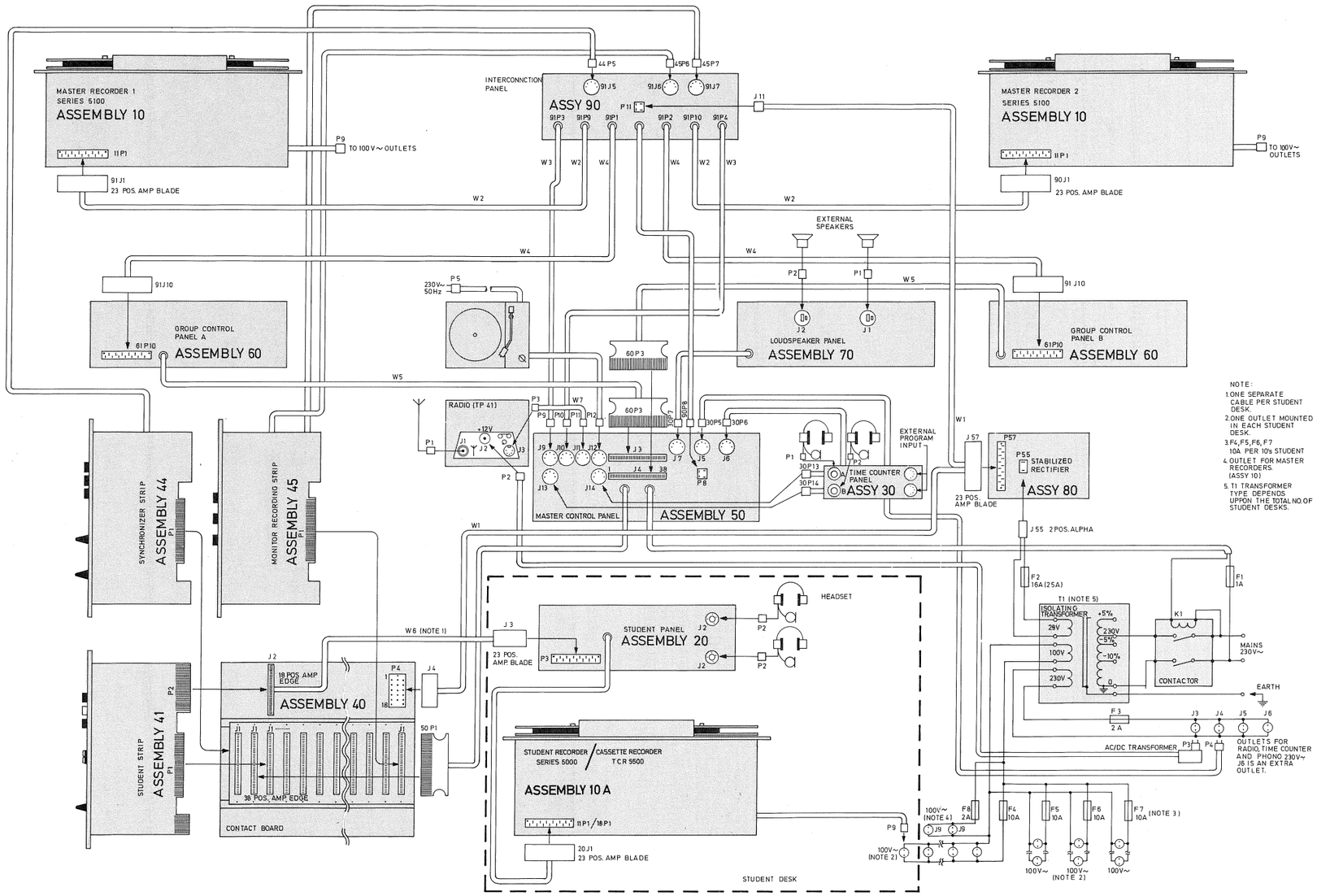
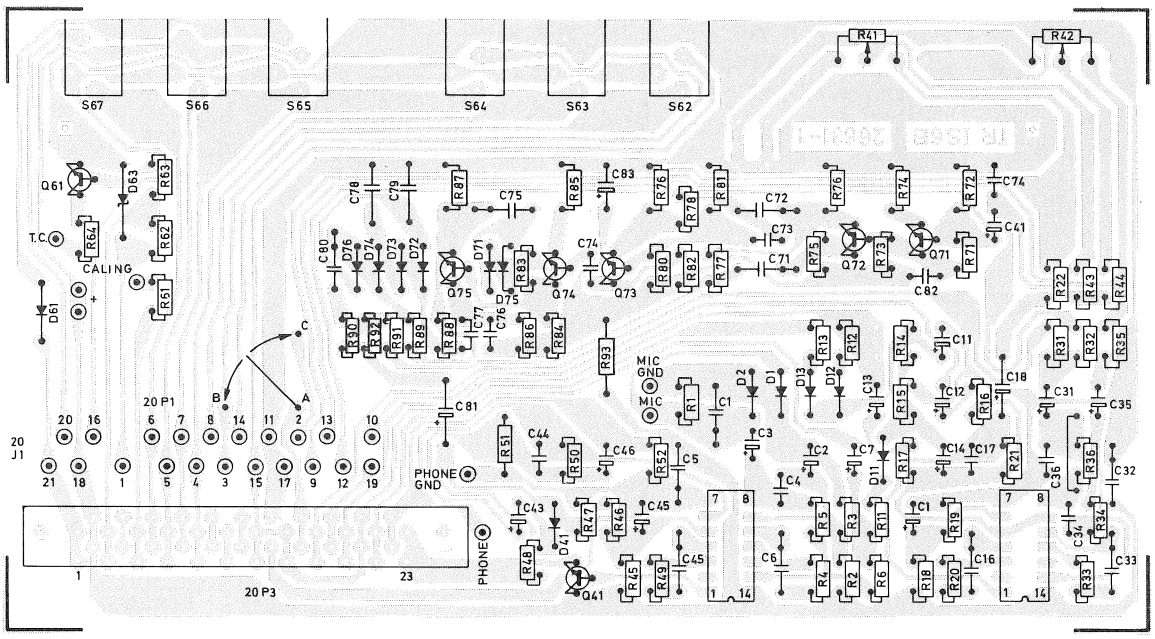
CABLING DIAGRAM

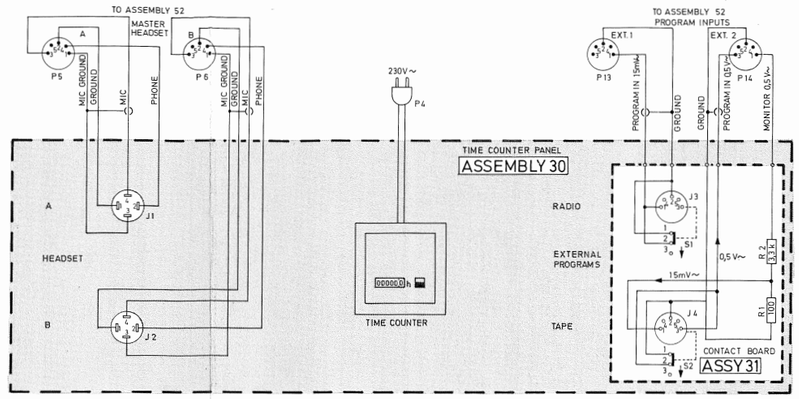


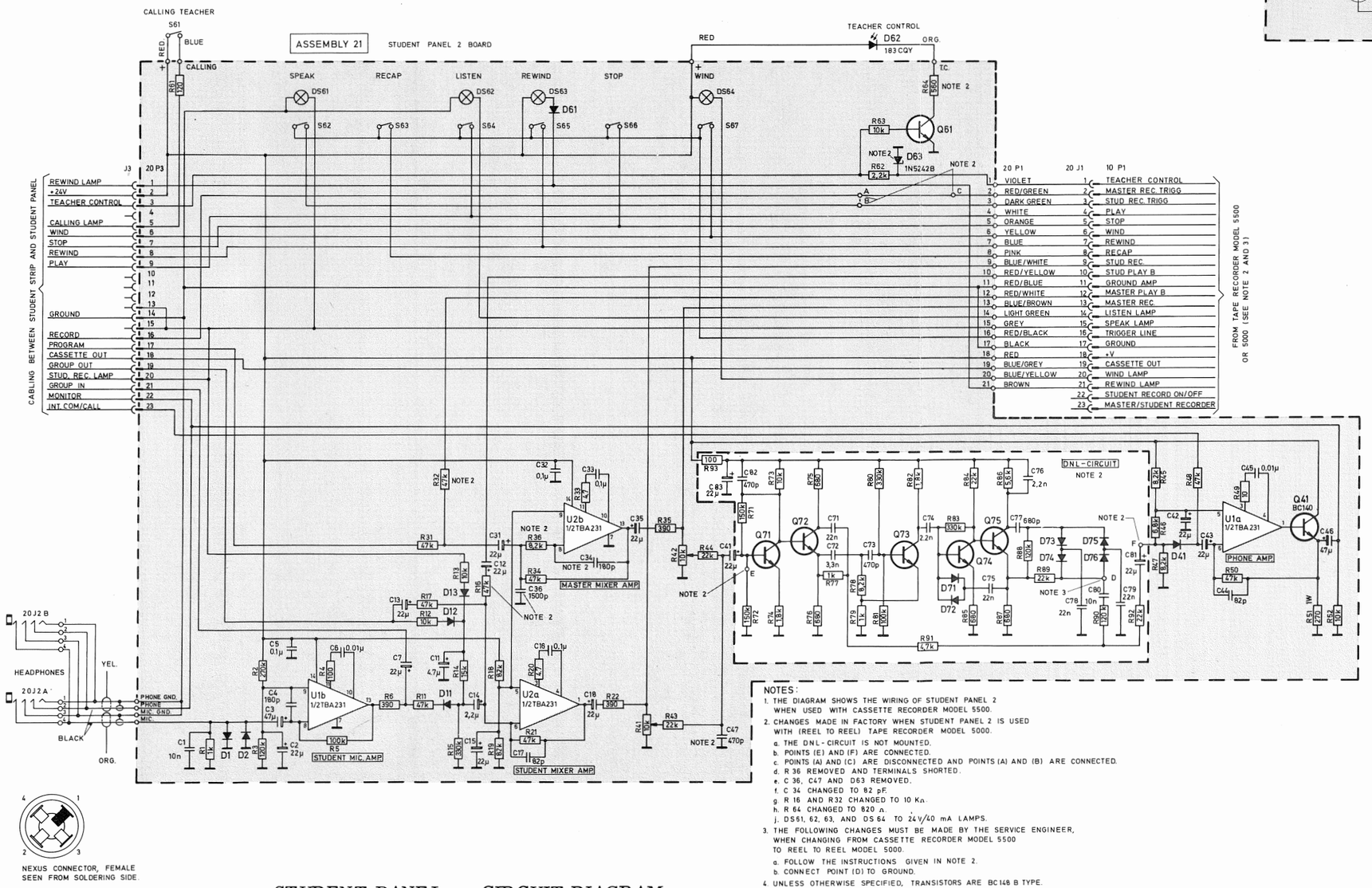
ASSEMBLY 20 — STUDENT PANEL



STUDENT PANEL BOARD - SEEN FROM SOLDER SIDE

ASSEMBLY 30
TIME COUNTER PANEL





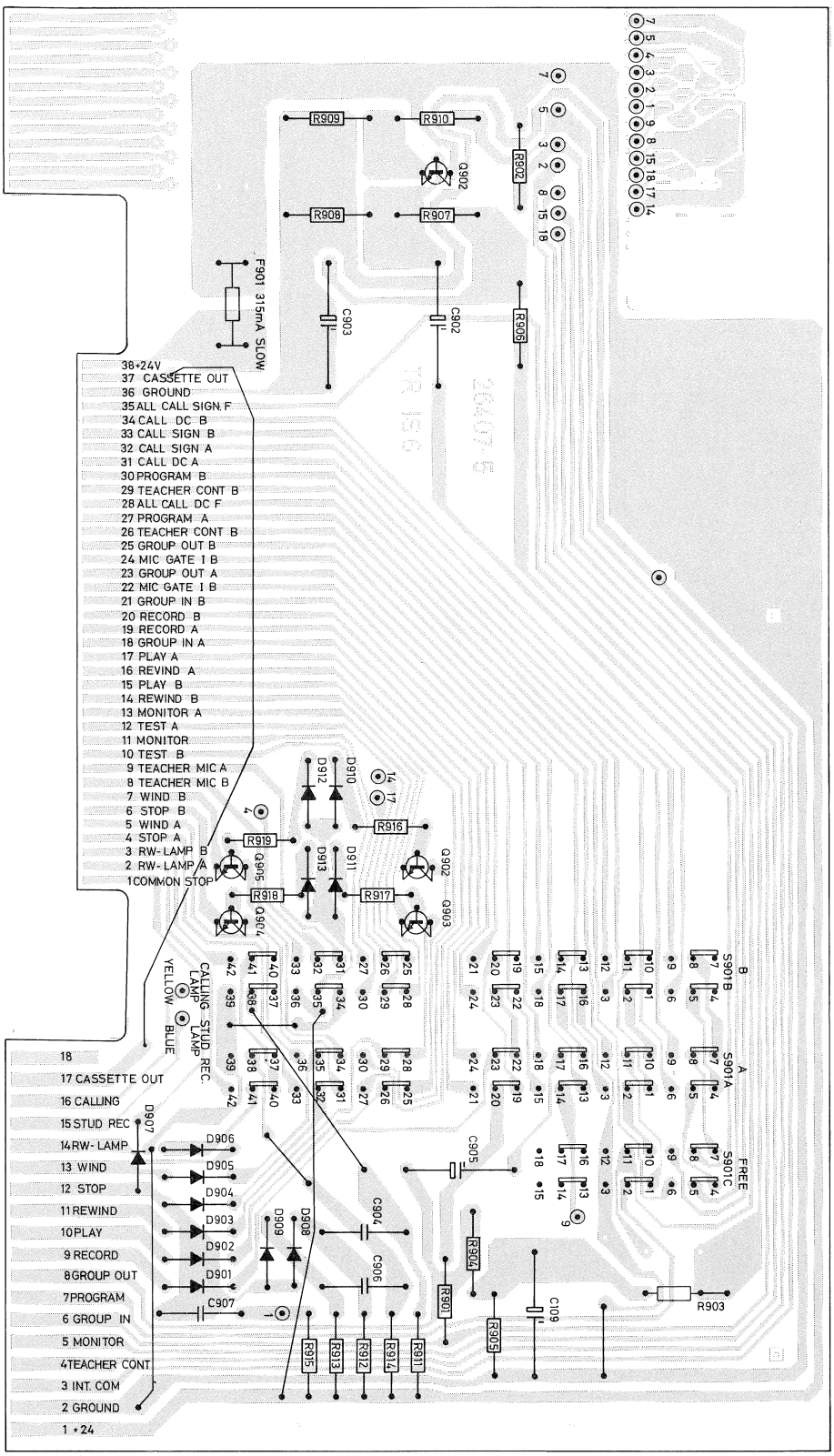
NEXUS CONNECTOR, FEMALE
SEEN FROM SOLDERING SIDE.

STUDENT PANEL - CIRCUIT DIAGRAM

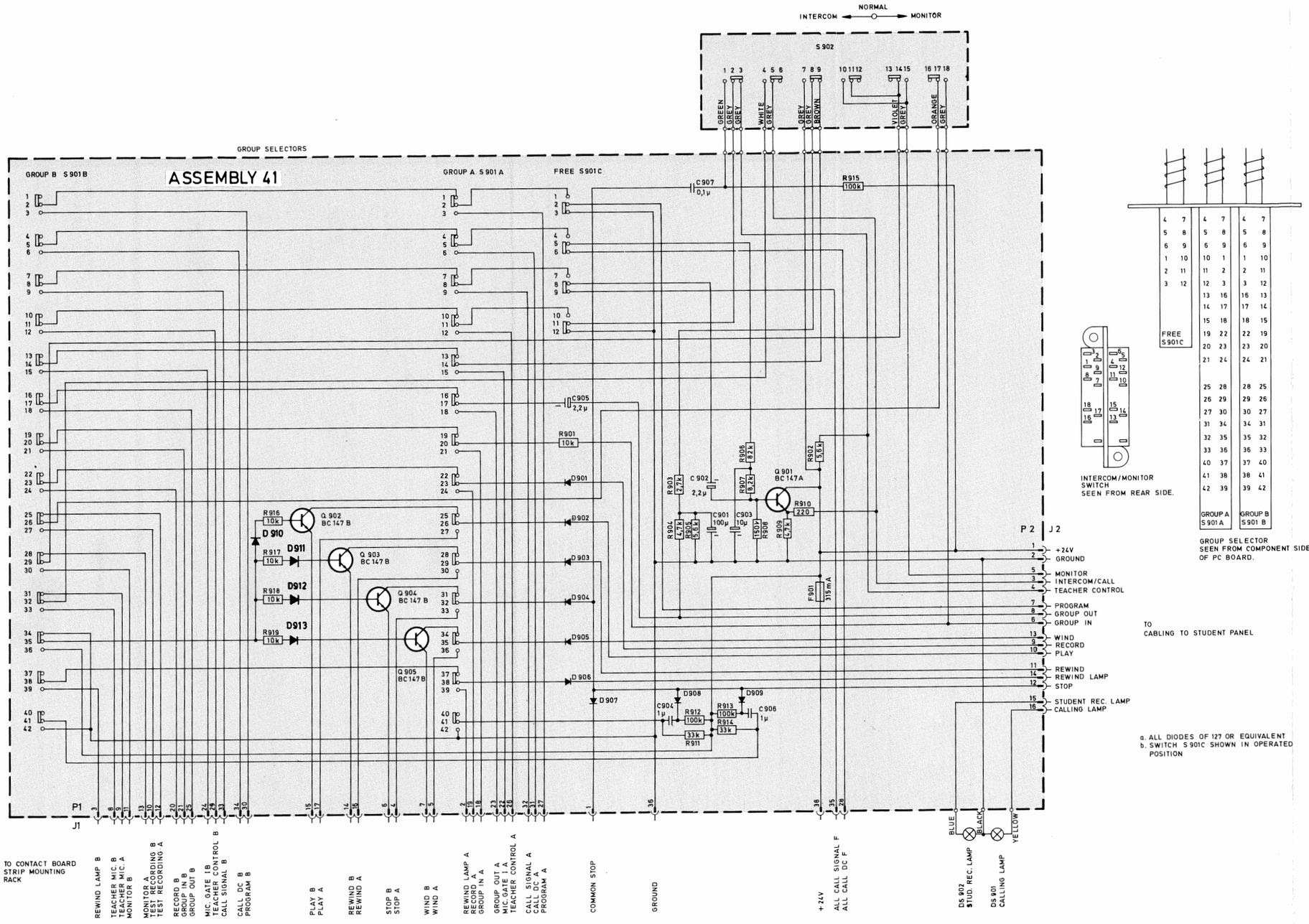
NOTES:

1. THE DIAGRAM SHOWS THE WIRING OF STUDENT PANEL 2 WHEN USED WITH CASSETTE RECORDER MODEL 5500.
2. CHANGES MADE IN FACTORY WHEN STUDENT PANEL 2 IS USED WITH (REEL TO REEL) TAPE RECORDER MODEL 5000.
   a. THE DNL-CIRCUIT IS NOT MOUNTED.
   b. POINTS (E) AND (F) ARE CONNECTED.
   c. POINTS (A) AND (C) ARE DISCONNECTED AND POINTS (A) AND (B) ARE CONNECTED.
   d. R 36 REMOVED AND TERMINALS SHORTED.
   e. C 36, C47 AND D63 REMOVED.
   f. C 34 CHANGED TO 82 pF.
   g. R 16 AND R 32 CHANGED TO 10 KΩ.
   h. R 64 CHANGED TO 820 Ω.
   j. DS61, 62, 63, AND DS 64 TO 24V/40 mA LAMPS.
3. THE FOLLOWING CHANGES MUST BE MADE BY THE SERVICE ENGINEER, WHEN CHANGING FROM CASSETTE RECORDER MODEL 5500 TO REEL TO REEL MODEL 5000.
   a. FOLLOW THE INSTRUCTIONS GIVEN IN NOTE 2.
   b. CONNECT POINT (D) TO GROUND.
4. UNLESS OTHERWISE SPECIFIED, TRANSISTORS ARE BC148 B TYPE.
5. UNLESS OTHERWISE SPECIFIED, DIODES ARE IN 4148 OR EQUIVALENT TYPE.

ASSEMBLY 41 — STUDENT STRIP

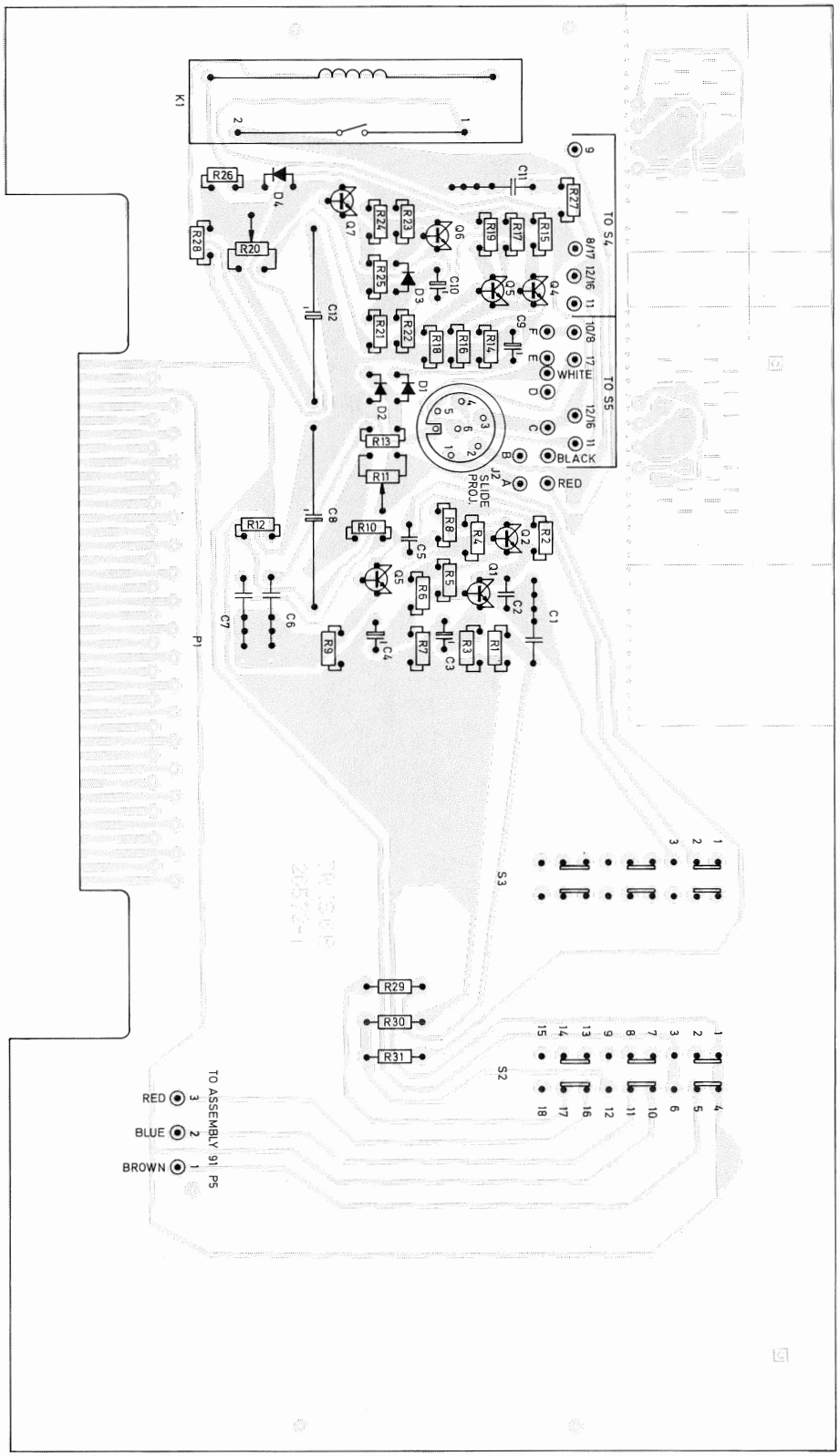


STUDENT STRIP BOARD - SEEN FROM SOLDER SIDE

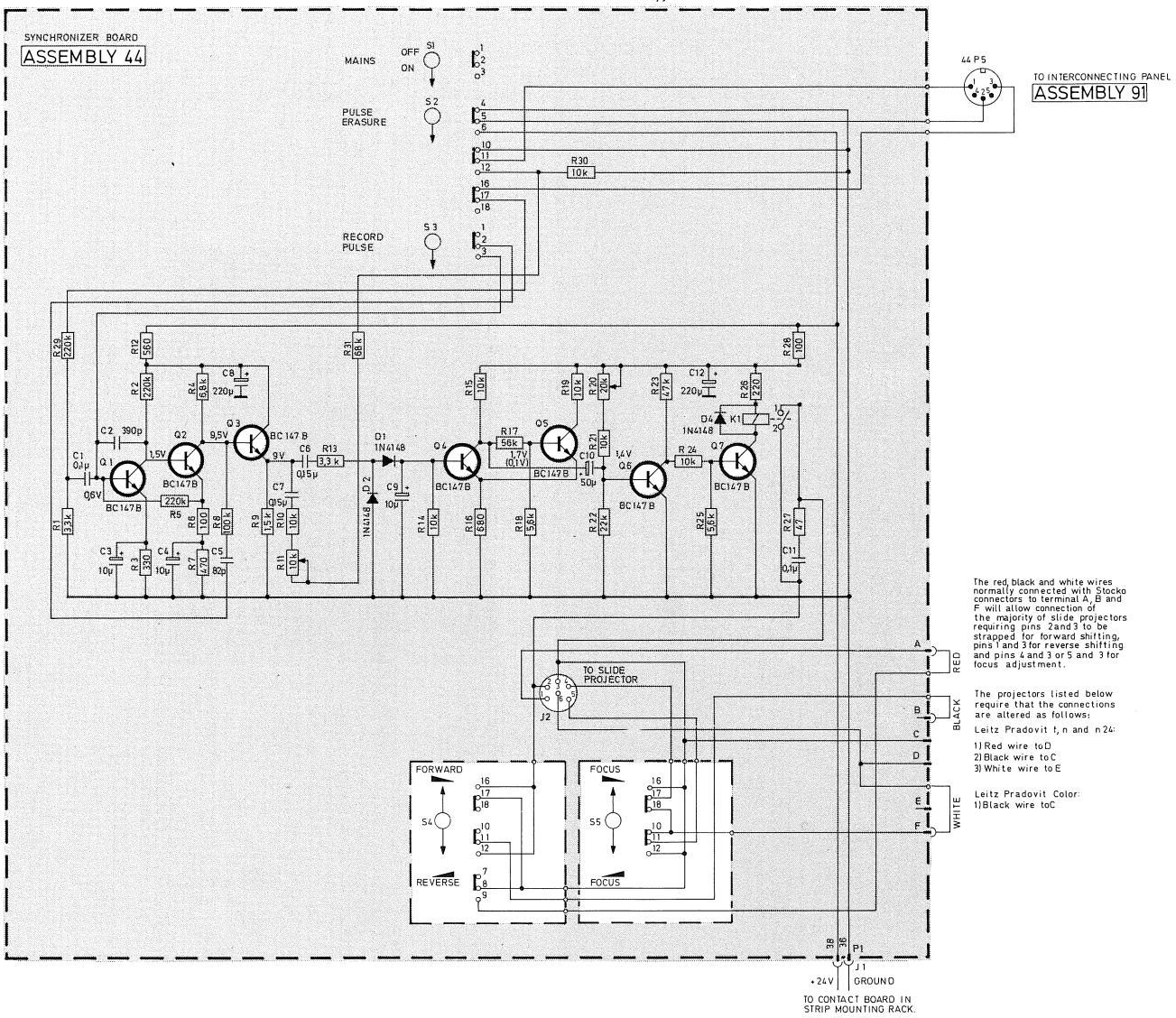


STUDENT STRIP – CIRCUIT DIAGRAM

ASSEMBLY 44 — SYNCHRONIZER STRIP (OPTIONAL)



SYNCHRONIZER STRIP BOARD - SEEN FROM SOLDER SIDE



The red, black and white wires normally connected with Stocko connectors to terminal A, B and F will allow connection of the majority of slide projectors requiring pins 2 and 3 to be strapped for forward shifting, pins 1 and 3 for reverse shifting and pins 4 and 3 or 5 and 3 for focus adjustment.

The projectors listed below require that the connections are altered as follows:

Leitz Pradovit f, n and n 24:

1) Red wire to D
2) Black wire to C
3) White wire to E

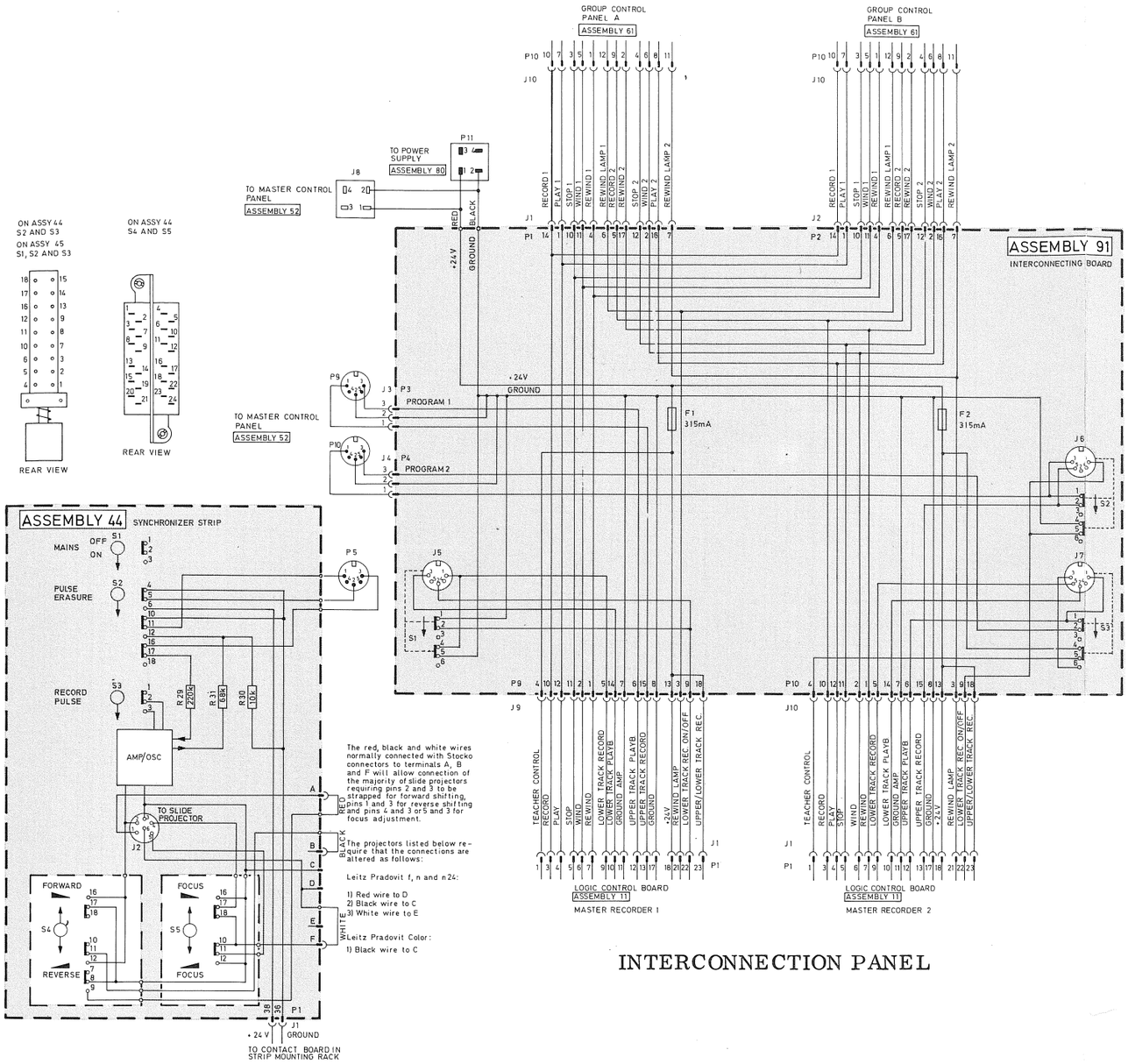
Leitz Pradovit Color:
1) Black wire to C

SYNCHRONIZER STRIP - CIRCUIT DIAGRAM

ASSEMBLY 44, 45* and 91

INTERCONNECTION DIAGRAM

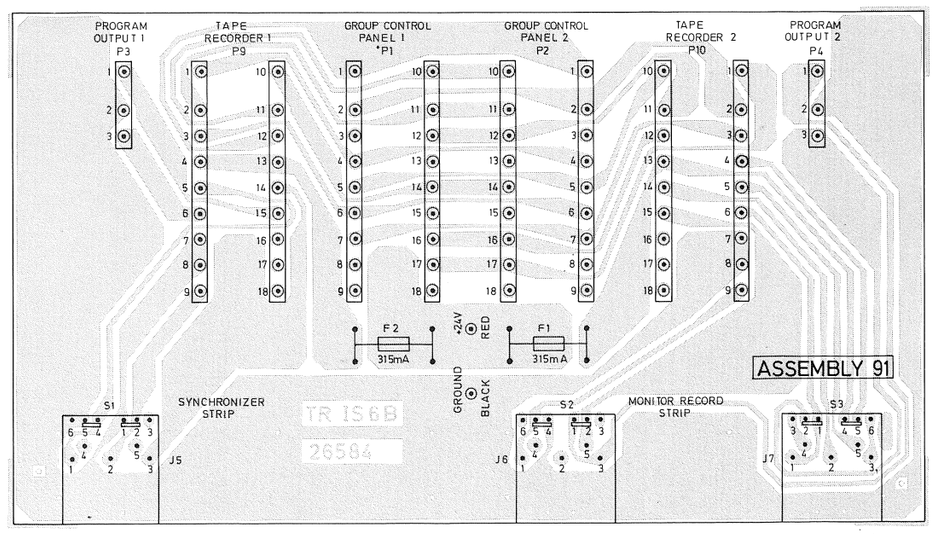
*German version only


GROUP CONTROL PANEL A
ASSEMBLY 61
GROUP CONTROL PANEL B
ASSEMBLY 61
TO POWER SUPPLY
ASSEMBLY 80
TO MASTER CONTROL PANEL
ASSEMBLY 52
ON ASSY 44 S2 AND S3
ON ASSY 45 S1, S2 AND S3
ON ASSY 44 S4 AND S5
REAR VIEW
REAR VIEW
ASSEMBLY 91
INTERCONNECTING BOARD
+24V
GROUND
PROGRAM 1
PROGRAM 2
F1 315mA
F2 315mA
ASSEMBLY 44 SYNCHRONIZER STRIP
MAINS
PULSE ERASURE
RECORD PULSE
AMP/OSC
TO SLIDE PROJECTOR
FORWARD
REVERSE
FOCUS
FOCUS
The red, black and white wires normally connected with Stocko connectors to terminals A, B and F will allow connection of the majority of slide projectors requiring pins 2 and 3 to be strapped for forward shifting, pins 1 and 3 for reverse shifting and pins 4 and 3 or 5 and 3 for focus adjustment.
The projectors listed below require that the connections are altered as follows:
Leitz Pradovit f, n and n24:
1) Red wire to D
2) Black wire to C
3) White wire to E
Leitz Pradovit Color:
1) Black wire to C
TO CONTACT BOARD IN STRIP MOUNTING RACK
ASSEMBLY 45 MONITOR RECORD STRIP
S1 RECORD TEACHER
S2 RECORD
S3 PLAYBACK
TO CONTACT BOARD IN STRIP MOUNTING RACK
LOGIC CONTROL BOARD ASSEMBLY 11
MASTER RECORDER 1
LOGIC CONTROL BOARD ASSEMBLY 11
MASTER RECORDER 2

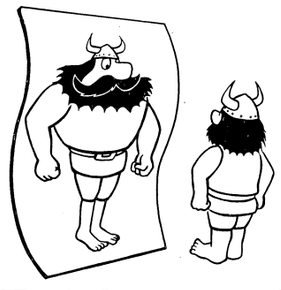
SYNCHRONIZER STRIP

INTERCONNECTION PANEL

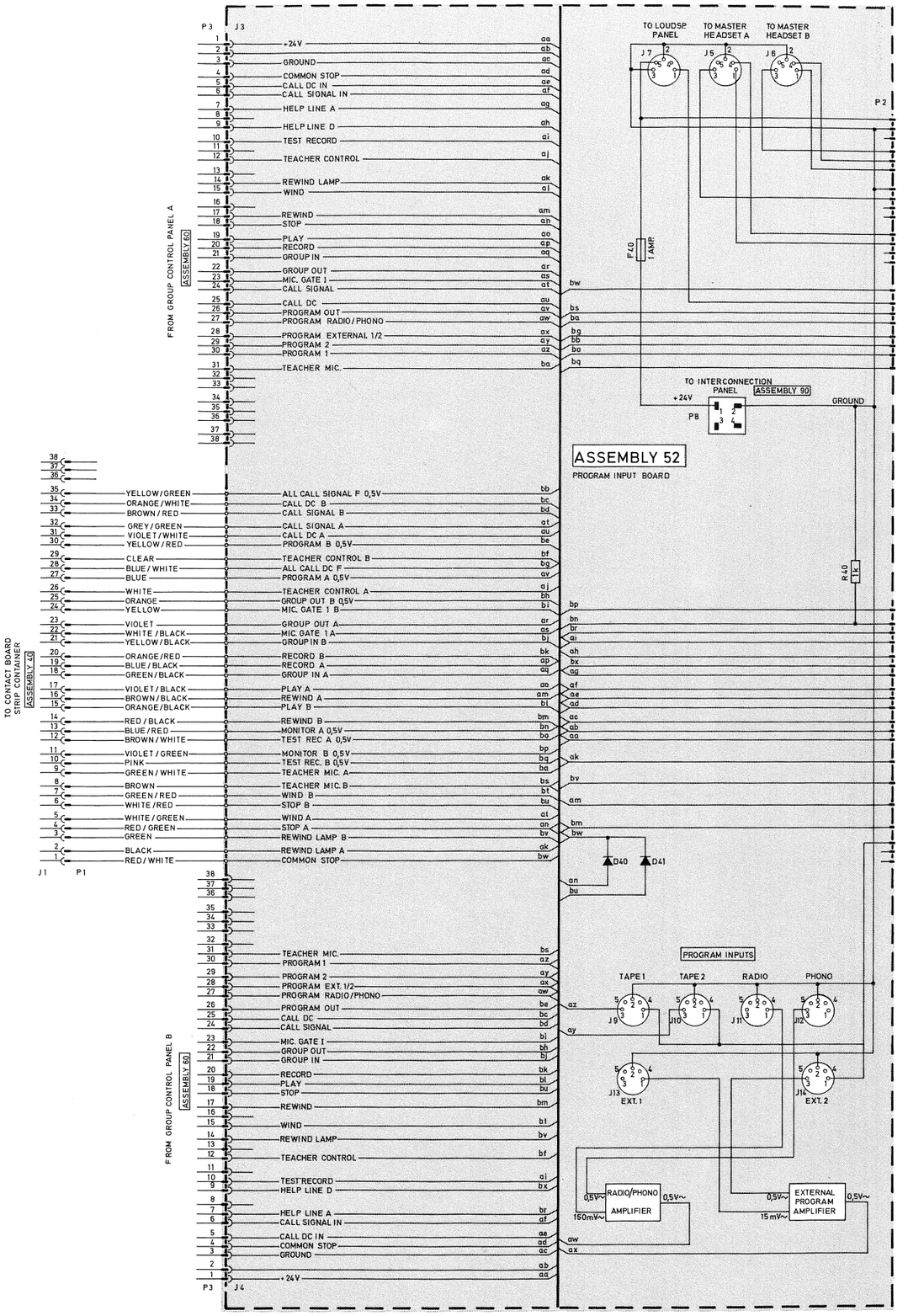
MONITOR RECORDING STRIP
(German version only)



INTERCONNECTION PANEL BOARD - SEEN FROM SOLDER SIDE

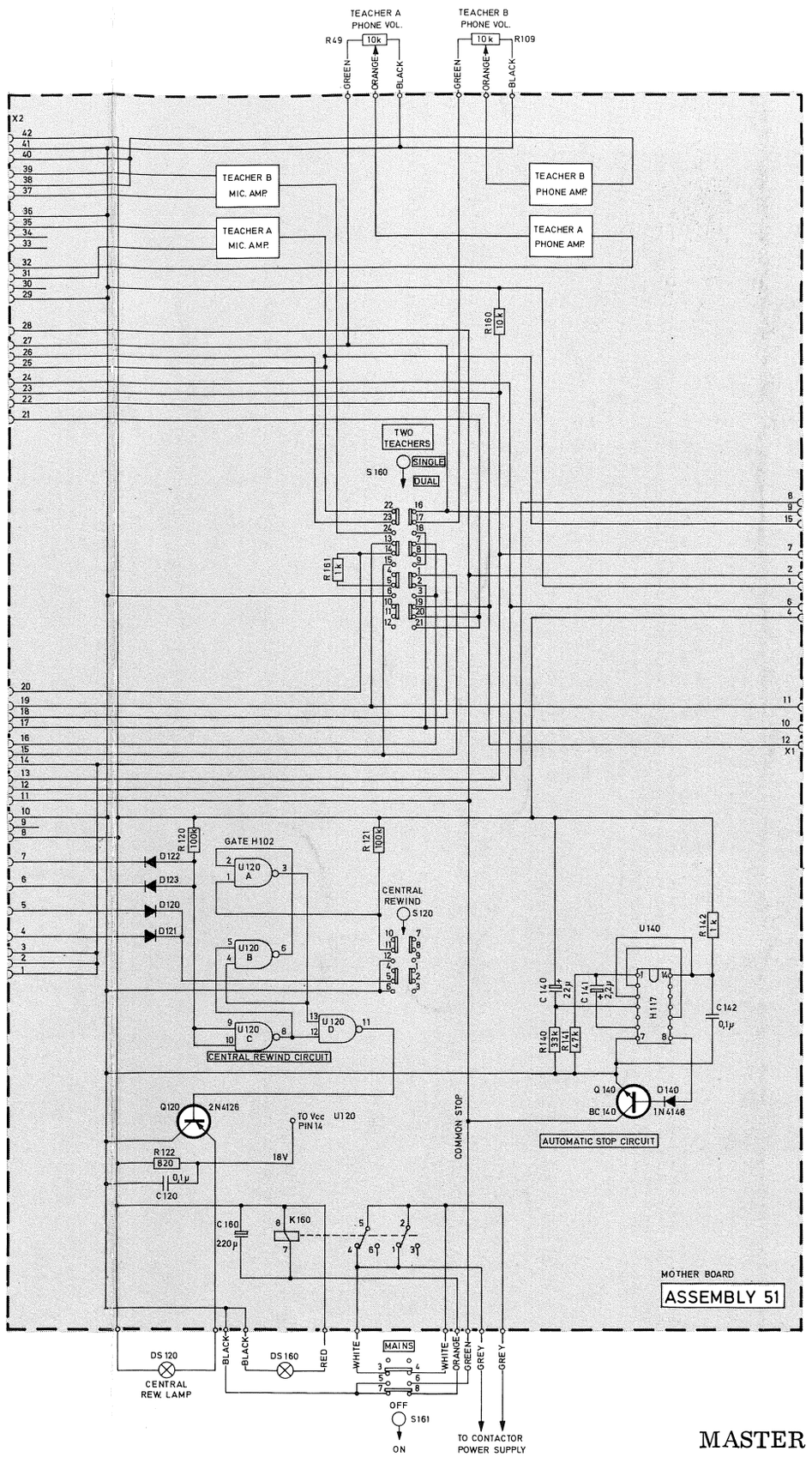


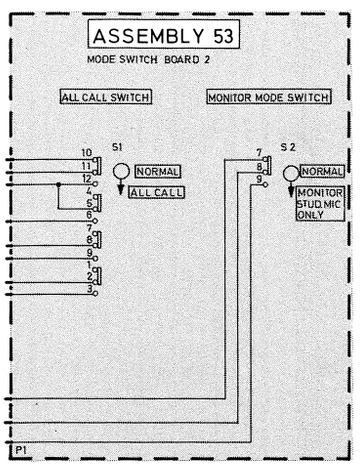
TEACHER AMPLIFIER

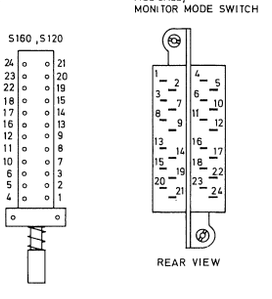


WHERE THE WIRING IS REPRESENTED BY HEAVY LINES WITH BRANCHES, EACH SINGLE CONNECTION IS IDENTIFIED BY THE SAME TWO LETTERS AT EACH BRANCH POINT. THE DIRECTION OF THE SINGLE WIRE WHERE IT ENTERS THE HEAVY LINE INDICATES IN WHICH DIRECTION THE OTHER BRANCH POINT WILL BE FOUND.

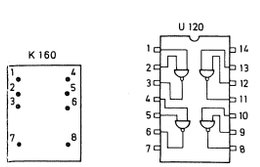
ASSEMBLY 50 — MASTER CONTROL PANEL







MASTER CONTROL PANEL - BLOCK DIAGRAM



NOTE:
1. CENTRAL REWIND CIRCUIT ONLY ON PANELS WITH GERMAN TEXT.
2. S161 SHOWN IN OPERATE POSITION.
3. K160 SHOWN IN OPERATE POSITION.